

I CLAIM:

1. A device for supplying a signal delayed by a predetermined period, the device
5 comprising:

an input terminal for receiving an input main signal;

an output terminal at which a delayed output signal is generated;

a vernier that provides variable delays for a main signal;

a sensor incorporated into said vernier for sensing for vernier's temperature;

10 a feedback loop for maintaining the temperature of the vernier at a constant level.

2. The device according to claim 1, wherein the sensor is incorporated into the vernier's
silicon die.

3. The device according to claim 1, wherein the feedback loop comprises an integrator
for providing on his output integrated difference of the temperature sensor output and
15 reference voltage.

4. The device according to claim 1, wherein the feedback loop comprises a heater/cooler
for maintaining the temperature of vernier.

5. The device according to claim 4, wherein the cooler/heater is implemented in Peltier
effect reversable heat pump.

20 6. The device according to claim 4, wherein the cooler/heater has a low temperature
resistance contact with the vernier's package.

7. A method for supplying a signal delayed by a predetermined period, the method
comprising the steps of:

receiving an input main signal;

25 providing a vernier for generating variable delays for the main signal;

generating an output signal after a predetermined delay period;

sensing for vernier's temperature to maintain it at a constant level.

8. A method according to claim 7, wherein the temperature is maintained by using a
heater/cooler having a low temperature resistance contact with the vernier's package.

30 9. A method according to claim 7, wherein the temperature is maintained as close to the
ambient temperature as possible so as to reduce extra heating of the temperature stabilizing
circuitry.